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10/597,725	08/03/2007	Christopher Gordon Gervase Turner	054054/315209	5434

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EXAMINER	
YANG, JAMES J	

ART UNIT	PAPER NUMBER
2612	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/597,725	TURNER ET AL.	
	Examiner	Art Unit	
	JAMES YANG	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08/04/2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25,27-34,36-38,50-55 and 57-62* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25, 27-34, 36-38, 50-55, 57-62* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 August 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *08/04/2006 10/08/2007 06/20/2008 07/23/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities:

On Page 7, Paragraph 5, “There is also provide” should be changed to --There is also provided--.

On Page 17, Paragraph 6, “excluded form” should be changed to --excluded from--.

On Page 22, Paragraph 2, “detracting form” should be changed to --detracting from--.

Appropriate correction is required.

Claim Objections

Claims 59-60 objected to because of the following informalities:

Claim 59 depends on claim 35, which has been cancelled. Furthermore, claim 60 depends on claim 59, which depends on claim 35. For purposes of examination, claims 59-60 will be dependent on claim 36 as claim 36 recites an integrated circuit. Furthermore, the phrase “wherein the circuit” should be changed to --wherein the integrated circuit-- to avoid possible antecedent basis issues.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-17, 25, 50-55 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 2 recite “the or each of which” which renders the claim indefinite because it is unclear which element or elements: the interrogator, the transponders, or the command signals with which the claim refers. For purposes of examination, the examiner will interpret "the or each of which " to refer to the command signals. Claims 3-17 are further rejected under 35 U.S.C. 112, second paragraph, based on their dependencies on claims 1 or 2.

Claims 9 and 25 recite the limitations "the arbitration sequence" in Line 3 and “the determination mechanism” in Line 4. There is insufficient antecedent basis for these limitations in the claim.

Claims 50 and 53 recite “the controlling transponder signal” and “the transponder that has been read”. There is insufficient antecedent basis for these limitations in the claim. The applicant appears to be claiming a transponder, the same transponder transmitting "the controlling transponder signal" and the same transponder being "the transponder that has been read", and for purposes of examination, the examiner will interpret a transponder as being so. Claims 51-52 and 54-55 are further rejected under

35 U.S.C. 112, second paragraph, based on their dependency on claims 50 and 53, respectively.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-4, 9-20, 23-25, 27-34, 36-38, and 61 are rejected under 35 U.S.C. 102(b) as being anticipated by Chan et al. (EP 0702323 A2).

Claim 1, Chan teaches:

A method of selecting or de-selecting one or more transponders, using one or more command signals from an interrogator (Chan, Col. 4, Lines 14-25**), the one or more transponders being within a field of interrogation (**Chan, Col. 4, Lines 8-13**), including the step of transmitting from the interrogator a command signal or signals (**Chan, Col. 3, Lines 53-57**), the or each of which includes selection or de-selection criteria, wherein if a transponder meets the selection or de-selection criteria (**Chan, Col. 4, Lines 32-51, One example is when a group of socks or shirts is to be interrogated, so the tags compare the select command fields with data stored in the tag memory to determine whether or not to move to a SELECTED state.**), said transponder determines the condition of a flag (**Chan, Col. 4, Lines 26-31, The tag

state is set based upon a comparison between data in the command sent by the base station and a mask. The tag state is a flag (see Chan, Col. 6, Lines 39-45 and Col. 7, Lines 8-11).**), said condition of the flag being used to determine one or more subsequent operations of the transponder (**Chan, Col. 9, Lines 46-48, The selected tags are read.**).**

Claim 2, Chan teaches:

A method of selecting or de-selecting one or more transponders, using one or more command signals from an interrogator (Chan, Col. 4, Lines 14-25**), the one or more transponders being within a field of interrogation (**Chan, Col. 4, Lines 8-13**), including the step of transmitting from the interrogator a command signal or signals (**Chan, Col. 3, Lines 53-57**), the or each of which includes data for comparison with data stored in the memory or memories of the transponder or transponders (**Chan, Col. 4, Lines 32-51, One example is when a group of socks or shirts is to be interrogated, so the tags compare the select command fields with data stored in the tag memory to determine whether or not to move to a SELECTED state.**), wherein the transponder or transponders set or reset a select flag dependent on whether they are to be selected or de-selected (**Chan, Col. 4, Lines 26-31, The tag state is set based upon a comparison between data in the command sent by the base station and a mask. The tag state is a flag (see Chan, Col. 6, Lines 39-45 and Col. 7, Lines 8-11).**).**

Claim 3, Chan further teaches:

If the data in the transponder memory corresponds to that sent by the command signal, the transponder is either selected or de-selected dependent on the setting of the select flag in the transponder (Chan, Col. 4, Lines 26-31, The tag state is set based upon a comparison between data in the command sent by the base station and a mask. The tag state is a flag (see Chan, Col. 6, Lines 39-45 and Col. 7, Lines 8-11) which can be changed between a READY state and a SELECTION state (see Chan, Col. 7, Lines 37-40 and Col. 8, Lines 3-6).**).**

Claim 4, Chan further teaches:

If the data in the transponder memory does not correspond to that sent by the command signal, the transponder is either selected or de-selected dependent on the setting of the select flag in the transponder (Chan, Col. 4, Lines 26-31, The tag state is set based upon a comparison between data in the command sent by the base station and a mask. The tag state is a flag (see Chan, Col. 6, Lines 39-45 and Col. 7, Lines 8-11) which can be changed between a READY state and a SELECTION state (see Chan, Col. 7, Lines 37-40 and Col. 8, Lines 3-6).**).**

Claim 9, Chan further teaches:

The select flag serves as an exclusion mechanism, whereby groups or sub-groups of transponders may be excluded from the arbitration sequence using this same select flag as part of the determination mechanism (Chan, Col. 4, Lines

20-37, The tags that change states from a READY state to a SELECTED state are identified as present, and thus those that are not are excluded from the identification process, i.e. the arbitration sequence. Since the SELECTED state is based on the data transmitted in the command message matching data stored in the tag, the state of the tag is a part of the determination mechanism.**).**

Claim 10, Chan further teaches:

The selection or de-selection of an individual transponder, or group or groups of transponders, uses a number of commands with parameters to address a population of transponders using any content of the transponder memory as a target selection field (Chan, Col. 4, Lines 32-59, One example of content of the transponder memory is whether the tag stores data regarding socks or shirts. In the example, the number of commands is two, one for shirts and one for socks.**).**

Claim 11, Chan further teaches:

The selection process is undertaken either as part of an arbitration process or as an independent process (Chan, Col. 4, Lines 14-19, The tags are selected based on an algorithm, which may also be interpreted generally as an arbitration process, since the system reads a select group of tags within a large group of tags.**).**

Claim 12, Chan further teaches:

The selection process allows individual or groups of transponders to be selected, excluded or a combination of selection and exclusion (Chan, Col. 7, Lines 8-14**) using just one command with a settable/resettable exclude flag (**Chan, Col. 7, Lines 24-40, A single command is transmitted to the tags, and a determination from the command is made as to whether to change the tag state from READY to SELECTED.**).**

Claim 13, Chan further teaches:

Said one command is a select command the parameters of which allow one or more transponders to be placed in a selected condition or removed from the selected condition according to a selection mask which is compared with a portion or all of the memory contents stored on the or each transponder (Chan, Col. 6, Lines 27-49, The tag status is updated based on the results of the comparison (see also Chan, Col. 8, Lines 47-52).**).**

Claim 14, Chan further teaches:

A connect command is used to address an individual transponder or a group of transponders in order to conduct a dialogue with it or them in the case of multiple transponders (Chan, Col. 8, Lines 33-39, The field with the tag memory address is one of the multiple fields used to establish a dialogue between the tag and the base station.**).**

Claim 15, Chan further teaches:

A Query command is used to allow the interrogator to query the population present for the presence of any transponders which have met the selection criteria (Chan, Col. 8, Lines 17-24**).**

Claim 16, Chan further teaches:

An acknowledge command is used to acknowledge the successful completion of an arbitration sequence of completion of a dialogue with a transponder (Chan, Col. 9, Lines 38-48, The command message includes data, for example pale green pants, which is used to acknowledge successful completion of an arbitration sequence, because the returned data from the tag indicates that the arbitration sequence was successful.**).**

Claim 17, Chan further teaches:

A singulate command is used during an arbitration sequence to place an individual transponder into a state whereby a dialogue may be conducted with it (Chan, Col. 8, Lines 53-57, The command as a whole is a singulate command because it affects the final state change of the tags.**).**

Claim 18, Chan teaches:

A transponder comprising logic circuitry (Chan, Col. 4, Lines 1-5**) responsive to a command signal from an interrogator (**Chan, Col. 4, Lines 1-13**),**

wherein if the transponder meets selection or de-selection criteria in the command signal it determines the condition of a flag (Chan, Col. 4, Lines 26-31, The tag state is set based upon a comparison between data in the command sent by the base station and a mask. The tag state is a flag (see Chan, Col. 6, Lines 39-45 and Col. 7, Lines 8-11).**), said condition of the flag being used to determine one or more subsequent operations of the transponder (**Chan, Col. 9, Lines 46-48, The selected tags are read.**).**

Claim 19, Chan further teaches:

The transponder has a memory (Chan, Col. 4, Lines 1-5 and Col. 6, Lines 27-35**), a select flag (**Chan, Col. 7, Lines 8-14**) and a comparator for comparing data in the command signal with data in the memory (**Chan, Col. 6, Lines 39-45**), whereby the transponder sets or resets the select flag dependent on whether it is to be selected or de-selected (**Chan, Col. 7, Lines 37-40 and Col. 8, Lines 3-6**).**

Claim 20, Chan further teaches:

If the data in the transponder memory does not correspond to that sent by the command signal, the transponder is either selected or de-selected dependent on the setting of the select flag in the transponder (Chan, Col. 4, Lines 26-31, The tag state is set based upon a comparison between data in the command sent by the base station and a mask. The tag state is a flag (see Chan, Col. 6, Lines 39-45 and

Col. 7, Lines 8-11) which can be changed between a READY state and a SELECTION state (see Chan, Col. 7, Lines 37-40 and Col. 8, Lines 3-6).**); or**

if the data in the transponder memory does correspond to that sent by the command signal, the transponder is still selected or deselected dependent on the setting of the select flag (Chan, Col. 4, Lines 26-31, The tag state is set based upon a comparison between data in the command sent by the base station and a mask. The tag state is a flag (see Chan, Col. 6, Lines 39-45 and Col. 7, Lines 8-11) which can be changed between a READY state and a SELECTION state (see Chan, Col. 7, Lines 37-40 and Col. 8, Lines 3-6).**).**

Claim 23, Chan further teaches:

If the select flag is set, the transponder will reply to a Query command or if not set, will not reply to a Query command (Chan, Col. 9, Lines 43-48, Tags placed in the SELECTED state will respond with their data, otherwise tags in the READY state will not (see Chan, Col. 9, Lines 33-37).**).**

Claim 24, Chan further teaches:

If the select flag is not set, the transponder is adapted to participate in an arbitration sequence or reply to a Query command (Chan, Col. 9, Lines 33-45, Those tags that are in the SELECTED or READY state may continue to go through the arbitration sequence, such as during an OR function (see Chan, Col. 9, Lines 21-26), as long as the command messages are still being sent.**).**

Claim 25, Chan further teaches:

The select flag serves as an exclusion mechanism, whereby groups or sub-groups of transponders may be excluded from the arbitration sequence using this same select flag as part of the determination mechanism (Chan, Col. 4, Lines 20-37, The tags that change states from a READY state to a SELECTED state are identified as present, and thus those that are not are excluded from the identification process, i.e. the arbitration sequence. Since the SELECTED state is based on the data transmitted in the command message matching data stored in the tag, the state of the tag is a part of the determination mechanism.**).**

Claim 27, Chan further teaches:

A settable/resettable exclude flag is provided whereby the selection process can select individual or groups of transponders to be selected, excluded or a combination of selection and exclusion using just one command (Chan, Col. 7, Lines 8-14 and Lines 24-40, A single command is transmitted to the tags, and a determination from the command is made as to whether to change the tag state from READY to SELECTED.**).**

Claim 28, Chan further teaches:

Said one command is a select command the parameters of which allows the transponder to be placed in a selected condition or removed from the

selected condition according to a selection mask which is compared with a portion or all of the memory contents stored on the or each transponder (Chan, Col. 6, Lines 27-49, The tag status is updated based on the results of the comparison (see also Chan, Col. 8, Lines 47-52).**).**

Claim 29, Chan further teaches:

The transducer is responsive to a connect command which is used to address an individual transponder or a group of transponders in order to conduct a dialogue with it or them in the case of multiple transponders (Chan, Col. 8, Lines 33-39, The field with the tag memory address is one of the multiple fields used to establish a dialogue between the tag and the base station.**).**

Claim 30, Chan further teaches:

The transducer is responsive to a Query command which is used to allow the interrogator to query the population present for the presence of any transponders which have met the selection criteria (Chan, Col. 8, Lines 17-24**).**

Claim 31, Chan further teaches:

The transducer is responsive to an acknowledge command which is used to acknowledge the successful completion of an arbitration sequence of completion of a dialogue with a transponder (Chan, Col. 9, Lines 38-48, The command message includes data, for example pale green pants, which is used to

acknowledge successful completion of an arbitration sequence, because the returned data from the tag indicates that the arbitration sequence was successful.**).**

Claim 32, Chan further teaches:

The transducer is responsive to a singulate command which is used during an arbitration sequence to place an individual transponder into a state whereby a dialogue may be conducted with it (Chan, Col. 8, Lines 53-57, The command as a whole is a singulate command because it affects the final state change of the tags.**).**

Claim 33, Chan teaches:

An identification system comprising an interrogator and a plurality of transponders (Chan, Col. 4, Lines 14-25**), the interrogator including a transmitter for transmitting (**Chan, Col. 3, Lines 52-58**) selection or de-selection criteria in one or more command signals to select or de-select an individual transponder, or one or more groups of transponders (**Chan, Col. 3, Lines 53-57**), each transponder including a receiver for receiving the command signal or signals (**Chan, Col. 4, Lines 1-5**) and logic circuitry responsive to the command signal or signals (**Chan, Col. 4, Lines 1-5**), whereby if the transponder meets selection or de-selection criteria in the command signal (**Chan, Col. 4, Lines 32-51, One example is when a group of socks or shirts is to be interrogated, so the tags compare the select command fields with data stored in the tag memory to determine whether or not to move to a SELECTED state.**) it determines the condition of a flag (**Chan, Col. 4, Lines 26-31,

The tag state is set based upon a comparison between data in the command sent by the base station and a mask. The tag state is a flag (see Chan, Col. 6, Lines 39-45 and Col. 7, Lines 8-11).**), said condition of the flag being used to determine one or more subsequent operations of the transponder (**Chan, Col. 9, Lines 46-48, The selected tags are read.**).**

Claim 34, Chan further teaches:

The selection or de-selection criteria is in the form of data in the command signal or signals (Chan, Col. 8, Lines 17-24**), the data to be compared with data in a memory or memories of the transponder or transponders within a field of interrogation (**Chan, Col. 7, Lines 47-52**), whereby the transponder or transponders set or reset a select flag dependent on whether they are to be selected or de-selected (**Chan, Col. 7, Lines 37-40 and Col. 8, Lines 3-6**).**

Claim 36, Chan teaches:

An integrated circuit for use in a transponder including a receiver for receiving a command signal from an interrogator (Chan, Col. 4, Lines 1-5**), comprising logic circuitry responsive to a command signal from the interrogator (**Chan, Col. 4, Lines 1-5**) wherein if the integrated circuit meets selection or de-selection criteria in the command signal it determines the condition of a flag (**Chan, Col. 4, Lines 26-31, The tag state is set based upon a comparison between data in the command sent by the base station and a mask. The tag state is a flag (see Chan,

Col. 6, Lines 39-45 and Col. 7, Lines 8-11).**), said condition of the flag being used to determine one or more subsequent operations of the integrated circuit (**Chan, Col. 9, Lines 46-48, The selected tags are read.**).**

Claim 37, Chan further teaches:

The integrated circuit comprising a memory (Chan, Col. 4, Lines 1-5 and Col. 6, Lines 27-35**), a select flag (**Chan, Col. 7, Lines 8-14**) and a comparator for comparing data in the command signal with data in the memory (**Chan, Col. 6, Lines 39-45**), whereby the circuitry sets or resets the select flag dependent on whether it is to be selected or de-selected (**Chan, Col. 7, Lines 37-40 and Col. 8, Lines 3-6**).**

Claim 38, Chan further teaches:

If the data in the memory does not correspond to that sent by the command signal, the integrated circuit is either selected or de-selected dependent on the setting of the select flag in the transponder (Chan, Col. 4, Lines 26-31, The tag state is set based upon a comparison between data in the command sent by the base station and a mask. The tag state is a flag (see Chan, Col. 6, Lines 39-45 and Col. 7, Lines 8-11) which can be changed between a READY state and a SELECTION state (see Chan, Col. 7, Lines 37-40 and Col. 8, Lines 3-6).**); or**

if the data in the memory does correspond to that sent by the command signal, the integrated circuit is still selected or deselected dependent on the

setting of the select flag (Chan, Col. 4, Lines 26-31, The tag state is set based upon a comparison between data in the command sent by the base station and a mask. The tag state is a flag (see Chan, Col. 6, Lines 39-45 and Col. 7, Lines 8-11) which can be changed between a READY state and a SELECTION state (see Chan, Col. 7, Lines 37-40 and Col. 8, Lines 3-6).**).**

2. Claims 50, 52-53, 55, and 61 are rejected under 35 U.S.C. 102(b) as being anticipated by Turner et al. (U.S. 2002/0024422).

Claim 50, Turner teaches:

A method of identifying a plurality of transponders comprising transmitting a reader signal from a reader (Turner, Paragraph [0053]**), receiving the reader signal in each transponder (**Turner, Paragraph [0053]**), recognizing in the reader a transponder signal transmitted from a transponder (**Turner, Paragraph [0055], The reader receives a preamble from the transponder with the shortest hold-off period.**) and issuing a mute instruction from the reader muting all other transponders (**Turner, Paragraph [0055], All the transponders except for the responding transponder receive the mute signal.**) and passing control to said transponder (**Turner, Paragraph [0055], The reader locks onto the selected transponder, and broadcasts a first command signal to the transponder.**), the muting instruction causing the other transponder or transponders to have moved from an Active state to a Standby state where their wait cycle between transmissions has been suspended (**Turner, Paragraph [0055],

By causing the transponders to not respond to the reader, the tags are effectively placed in a muted state. The muted stated is interpreted as a standby state because the transponders are instructed not to respond. Also, the hold-off periods are the wait cycles between transmissions.**), and transmitting an Acknowledge instruction from the reader after the controlling transponder signal has been successfully received by the reader (**Turner, Paragraph [0055], The second command signal is an Acknowledge instruction which is transmitted after the transmitting transponder responds.**), the Acknowledge instruction causing the transponder that has been read to move to a Quiet state and causing the other transponder or transponders to move from their Standby state back to the Active state (**Turner, Paragraph [0055], The second command signal places the transmitting transponder into a sleep state, or quiet state, while unmuting the remaining transponders, which is interpreted as an active state.**).**

Claim 52, Turner further teaches:

The selecting or de-selecting of an individual, or one or more groups of transponders, moves them from a powered up Ready state to the Active state (Turner, Paragraph [0055], The muted tags are powered by the initial energizing signal from the reader (see Turner, Paragraph [0053]), and do not respond to the reader. The muted tags are thus in a powered up ready state, waiting for the unmute signal from the reader.**).**

Claim 53, Turner teaches:

An identification system comprising a reader including a transmitter for transmitting a reader signal (Turner, Paragraph [0053]**), and a plurality of transponders (**Turner, Paragraph [0052]**), each transponder including a receiver for receiving the reader signal and a transmitter for generating a transponder signal (**Turner, Paragraph [0052]**), whereby upon recognizing a transponder signal from a said transponder (**Turner, Paragraph [0055], The reader receives a preamble from the transponder with the shortest hold-off period.**) the reader issues a mute instruction (**Turner, Paragraph [0055]**), muting all other active transponders (**Turner, Paragraph [0055], All the transponders except for the responding transponder receive the mute signal.**) and passing control to the said transponder (**Turner, Paragraph [0055], The reader locks onto the selected transponder, and broadcasts a first command signal to the transponder.**), the muting instruction causing the other transponder or transponders to have moved from an Active state to a Standby state where their wait cycle between transmissions has been suspended (**Turner, Paragraph [0055], By causing the transponders to not respond to the reader, the tags are effectively placed in a muted state. The muted stated is interpreted as a standby state because the transponders are instructed not to respond. Also, the hold-off periods are the wait cycles between transmissions.**), the reader issues an Acknowledge instruction after the controlling transponder signal has been successfully received by the reader (**Turner, Paragraph [0055], The second command signal is an Acknowledge instruction which is transmitted after the transmitting transponder responds.**), the Acknowledge**

instruction causing the transponder that has been read to move to a Quiet state and causing the other transponder or transponders to move from their Standby state back to the Active state (Turner, Paragraph [0055], The second command signal places the transmitting transponder into a sleep state, or quiet state, while unmuting the remaining transponders, which is interpreted as an active state.**).**

Claim 55, Turner further teaches:

The selecting or de-selecting of an individual, or one or more groups of transponders, moves them from a powered up Ready state to the Active state (Turner, Paragraph [0055], The muted tags are powered by the initial energizing signal from the reader (see Turner, Paragraph [0053]), and do not respond to the reader. The muted tags are thus in a powered up ready state, waiting for the unmute signal from the reader.**).**

Claim 61, Chan teaches:

A reader for identifying a plurality of transponders (Chan, Col. 4, Lines 14-25**), the reader comprising a transmitter for transmitting a command signal or signals to the transponders (**Chan, Col. 3, Lines 52-58**), the command signal or signals including selection or de-selection criteria to select or de-select an individual transponder, or one or more groups of transponders (**Chan, Col. 3, Lines 53-57**), whereby the transponder or transponders set or reset a select flag**

dependent on whether they are to be selected or de-selected (Chan, Col. 7, Lines 37-40 and Col. 8, Lines 3-6**).**

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 5-8, and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al. (EP 0702323 A2) in view of Korger (U.S. 6,880,050).

Claims 5 and 21, Chan teaches:

The select flag is connected to one or more logic operations **which together define selection logic circuitry of the transponder (**Chan, Col. 9, Lines 21-37, The process performs OR and AND functions on the tag data to determine selection or non-selection of the tags, which are logic functions.**).**

Chan does not teach:

Logic gates.

Korger teaches:

Logic elements (Korger, Col. 5, Lines 44-55**).**

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the transponder in Chan by integrating the teaching of logic elements as taught by Korger.

The motivation would be to expedite data transfer by implementing common logic elements for processing of data (see Korger, Col. 6, Lines 1-7). Therefore, the AND and OR functions in the tags in Chan would be performed by the combination of logic elements as taught by Korger.

Claims 6 and 22, Chan teaches:

The flag determining whether the transponder should respond to a Query command from the interrogator or participate in an arbitration sequence or not (Chan, Col. 9, Lines 43-48, Tags placed in the SELECTED state will respond with their data, otherwise tags in the READY state will not (see Chan, Col. 9, Lines 33-37).**).**

Chan does not teach:

The flag is in the form of a bistable or flip-flop.

Korger teaches:

A flip flop that outputs a HIGH bit (Korger, Col. 5, Lines 44-55**).**

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the transponder in Chan by integrating the teaching of a flip flop as taught by Korger.

The motivation would be to expedite data transfer by implementing common logic elements for processing of data (see Korger, Col. 6, Lines 1-7). Therefore, the HIGH bit output of the flip flop would indicate one of the possible changes in the state of the tag.

Claim 7, Chan in view of Korger further teaches:

If the select flag is set, the transponder will reply to a Query command or if not set, will not reply to a Query command (Chan, Col. 9, Lines 43-48, Tags placed in the SELECTED state will respond with their data, otherwise tags in the READY state will not (see Chan, Col. 9, Lines 33-37).**).**

Claim 8, Chan in view of Korger further teaches:

If the select flag is not set, the transponder is adapted to participate in an arbitration sequence or reply to a Query command (Chan, Col. 9, Lines 33-45, Those tags that are in the SELECTED or READY state may continue to go through the arbitration sequence, such as during an OR function (see Chan, Col. 9, Lines 21-26), as long as the command messages are still being sent.**).**

4. Claims 51 and 54 rejected under 35 U.S.C. 103(a) as being unpatentable over Turner et al. (U.S. 2002/0024422) in view of Chan et al. (EP 0702323 A2).

Claims 51 and 54, Turner teaches:

A transponder moving between the Active state and the Standby state to suspend their random wait cycle, and their operating state **is reset when moving from the Standby state to the Active state to continue their random wait cycle (**Turner, Paragraph [0055], The hold-off period is a random wait cycle.**).**

Turner does not explicitly teach:

A member flag.

Chan teaches:

A member flag (Chan, Col. 4, Lines 26-31, The tag state is set based upon a comparison between data in the command sent by the base station and a mask. The tag state is a flag (see Chan, Col. 6, Lines 39-45 and Col. 7, Lines 8-11).**).**

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the reading protocol in Turner by integrating the teaching of setting a flag in a tag as taught by Chan.

The motivation would be to incorporate a known method of identifying tags for rapid identification of tags in a tag population (see Chan, Col. 2, Lines 29-31).

5. Claims 57-60, and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al. (EP 0702323 A2) in view of Turner et al. (U.S. 2002/0024422).

Claim 57, Chan does not teach:

The transponder is responsive to a muting instruction causing the transponder to have moved from an Active state to a Standby state where its wait

cycle between transmissions has been suspended, the transponder being responsive to an Acknowledge instruction causing the transponder to move from its Standby state back to the Active state.

Turner teaches:

The transponder is responsive to a muting instruction causing the transponder to have moved from an Active state to a Standby state where its wait cycle between transmissions has been suspended (Turner, Paragraph [0055], By causing the transponders to not respond to the reader, the tags are effectively placed in a muted state. The muted stated is interpreted as a standby state because the transponders are instructed not to respond. Also, the hold-off periods are the wait cycles between transmissions. In this combination, a transponder in the selected group to be read may be muted such that all tags that are selected in the group may be read.**), the transponder being responsive to an Acknowledge instruction causing the transponder to move from its Standby state back to the Active state (**Turner, Paragraph [0055], The second command signal places the transmitting transponder into a sleep state, or quiet state, while unmuting the remaining transponders, which is interpreted as an active state.**).**

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system and method for tag group select in Chan by integrating the teaching of muting and unmuting tags as taught by Turner.

The motivation would be to provide a protocol for reading transponders that improve total read time and avoids collisions between data streams (see Turner, Paragraph [0002]).

Claim 58, Chan in view of Turner further teaches:

The transponder when in the Active state is responsive to an Acknowledge instruction from the reader to move the transponder from the Active state to a Quiet state (Turner, Paragraph [0055], The second command signal places the transmitting transponder into a sleep state, or quiet state, while unmuting the remaining transponders, which is interpreted as an active state.**).**

Claim 59, Chan does not teach:

The circuit is responsive to a muting instruction causing the circuit to have moved from an Active state to a Standby state where its wait cycle between transmissions has been suspended, the circuit being responsive to an Acknowledge instruction causing the circuit to move from its Standby state back to the Active state.

Turner teaches:

The circuit is responsive to a muting instruction causing the circuit to have moved from an Active state to a Standby state where its wait cycle between transmissions has been suspended (Turner, Paragraph [0055], By causing the transponders to not respond to the reader, the tags are effectively placed in a muted

state. The muted stated is interpreted as a standby state because the transponders are instructed not to respond. Also, the hold-off periods are the wait cycles between transmissions. In this combination, a transponder in the selected group to be read may be muted such that all tags that are selected in the group may be read.**), the circuit being responsive to an Acknowledge instruction causing the circuit to move from its Standby state back to the Active state (**Turner, Paragraph [0055], The second command signal places the transmitting transponder into a sleep state, or quiet state, while unmuting the remaining transponders, which is interpreted as an active state.**).**

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system and method for tag group select in Chan by integrating the teaching of muting and unmuting tags as taught by Turner.

The motivation would be to provide a protocol for reading transponders that improve total read time and avoids collisions between data streams (see Turner, Paragraph [0002]).

Claim 60, Chan in view of Turner further teaches:

The circuit when in the Active state is responsive to an Acknowledge instruction from the reader to move the circuit from the Active state to a Quiet state (Turner, Paragraph [0055], The second command signal places the transmitting transponder into a sleep state, or quiet state, while unmuting the remaining transponders, which is interpreted as an active state.**).**

Claim 62, Chan teaches:

Including a transmitter for transmitting a reader signal to a plurality of transponders (Chan, Col. 4, Lines 14-25**), each transponder including a receiver for receiving the reader signal and a transmitter for generating a transponder signal (**Chan, Col. 4, Lines 1-5, The antenna serves to receive and transmit signals to and from the transponder.**),**

Chan does not teach:

The reader upon recognizing a transponder signal from a said transponder is adapted to issue a mute instruction, muting all other active transponders and passing control to the said transponder, the muting instruction causing the other transponder or transponders to have moved from an Active state to a Standby state where their wait cycle between transmissions has been suspended, the reader also being adapted to issue an Acknowledge instruction after the controlling transponder signal has been successfully received by the reader, the Acknowledge instruction causing the transponder that has been read to move to a Quiet state and causing the other transponder or transponders to move from their Standby state back to the Active state.

Turner teaches:

The reader upon recognizing a transponder signal from a said transponder (Turner, Paragraph [0055], The reader receives a preamble from the transponder with the shortest hold-off period.**) is adapted to issue a mute instruction (**Turner, Paragraph [0055]**), muting all other active transponders (**Turner, Paragraph [0055],

All the transponders except for the responding transponder receive the mute signal.**)** **and passing control to the said transponder (**Turner, Paragraph [0055], The reader locks onto the selected transponder, and broadcasts a first command signal to the transponder.**), the muting instruction causing the other transponder or transponders to have moved from an Active state to a Standby state where their wait cycle between transmissions has been suspended (**Turner, Paragraph [0055], By causing the transponders to not respond to the reader, the tags are effectively placed in a muted state. The muted stated is interpreted as a standby state because the transponders are instructed not to respond. Also, the hold-off periods are the wait cycles between transmissions.**), the reader also being adapted to issue an Acknowledge instruction after the controlling transponder signal has been successfully received by the reader (**Turner, Paragraph [0055], The second command signal is an Acknowledge instruction which is transmitted after the transmitting transponder responds.**), the Acknowledge instruction causing the transponder that has been read to move to a Quiet state and causing the other transponder or transponders to move from their Standby state back to the Active state (**Turner, Paragraph [0055], The second command signal places the transmitting transponder into a sleep state, or quiet state, while unmuting the remaining transponders, which is interpreted as an active state.**).**

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system and method for tag group select in Chan by integrating the teaching of muting and unmuting tags as taught by Turner.

The motivation would be to provide a protocol for reading transponders that improve total read time and avoids collisions between data streams (see Turner, Paragraph [0002]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES YANG whose telephone number is (571)270-5170. The examiner can normally be reached on M-F 8:30-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Zimmerman can be reached on 571-272-3059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/J.Y./

/Brian A Zimmerman/
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